

## Case 3048

**NYMPHULINAE Duponchel, [1845] (Insecta, Lepidoptera): proposed precedence over ACENTROPINAE Stephens, 1835**

M. Alma Solis

*Systematic Entomology Laboratory, Agriculture Research Service, USDA, National Museum of Natural History, MRC 168, Washington, D.C. 20560, U.S.A. (e-mail: asolis@sel.barc.usda.gov)*

**Abstract.** The purpose of this application is to conserve usage of the name NYMPHULINAE Duponchel, [1845] for a widely distributed subfamily of crambid moths; it is the only taxon in the Lepidoptera with true aquatic caterpillars. The name NYMPHULINAE is accepted by most workers as a subjective synonym of ACENTROPINAE Stephens, 1835. The senior name has been used as a valid name only a small number of times in recent years; it is proposed that NYMPHULINAE should be given precedence when the two names are regarded as synonyms.

**Keywords.** Nomenclature; taxonomy; Lepidoptera; CRAMBIDAE; ACENTROPINAE; NYMPHULINAE; *Acentropus*; *Nymphula*.

---

1. Stephens (1835, p. 148) established the family-group name ACENTROPIDAE based on the nominal genus *Acentropus* Curtis, 1834 (folio 497), type species by original designation *Acentropus garnonsii* Curtis, 1834 (folio 497). *Acentropus* was originally placed in the Trichoptera, but Westwood ([1835], p. 117) transferred the genus to the Lepidoptera.

2. Duponchel ([1845], p. 201) established the family-group name NYMPHULITES as a subtribe based on the nominal genus *Nymphula* Schrank, 1802 (p. 162) to include the crambid moths with true aquatic caterpillars. Following an application to the Commission (Fletcher & Nye, 1982), *Phalaena stagnata* Donovan, 1806 was designated as the type species of *Nymphula* by use of the plenary powers (Opinion 1406, October 1986); both *Nymphula* and *Phalaena stagnata* were placed on Official Lists. Currently, the NYMPHULINAE has 93 genera (Fletcher & Nye, 1984), including *Acentropus*, and more than 700 species (Heppner, 1991) worldwide. It is the only taxon in the Lepidoptera with aquatic caterpillars, predominantly feeding on plants associated with water. A few species are known to damage rice and water lilies, and some have been found to be predators on the SIMULIIDAE (blackflies). Some species have been tested for the biological control of aquatic weeds.

3. Speidel (1981, 1984) treated NYMPHULINAE as a junior synonym of ACENTROPINAE when he revised the Palearctic ACENTROPINAE. The synonymy of NYMPHULINAE and ACENTROPINAE has been generally accepted (e.g., Inoue, 1982; Fletcher & Nye, 1984; Palm, 1986; Munroe, 1995; Shaffer, Nielsen & Horak, 1996), but these authors have all chosen to use NYMPHULINAE as the valid name. The Commission Secretariat has a list of 72 representative works in the last 20 years using the name NYMPHULINAE. Minet (1982, p. 269) suggested that the Commission should

be asked to 'suppress' the name ACENTROPIDAE, but (pers. comm., 1996) confirmed that he had not made such a proposal to the Commission.

4. Apart from Gomez Bustillo (1983), only Speidel and his co-author have used ACENTROPINAE as valid in recent years (Roesler & Speidel, 1981; Speidel, 1981, 1982, 1983, 1984, 1996).

5. Replacement of NYMPHULINAE Duponchel, [1845] by the senior synonym ACENTROPINAE Stephens, 1835, would result in the name change of a family-group taxon comprising 93 genera worldwide and cause confusion in the nomenclature of the PYRALOIDEA, particularly for the aquatic weed biological control community. A change would offer no compensating advantage. In view of this I propose that the junior name NYMPHULINAE should be given precedence over ACENTROPINAE whenever the two are considered to be synonyms.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary powers to rule that the family-group name NYMPHULINAE Duponchel, [1845] and other family-group names based on *Nymphula* Schrank, 1802 are to be given precedence over ACENTROPINAE Stephens, 1835 and other family-group names based on *Acentropus* Curtis, 1834 whenever they are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the name *Acentropus* Curtis, 1834 (gender: masculine), type species by original designation *Acentropus garnonsii* Curtis, 1834;
- (3) to place on the Official List of Specific Names in Zoology the name *garnonsii* Curtis, 1834, as published in the binomen *Acentropus garnonsii* (specific name of the type species of *Acentropus* Curtis, 1834);
- (4) to place on the Official List of Family-Group Names in Zoology the following names:
  - (a) NYMPHULINAE Duponchel, [1845] (type genus *Nymphula* Schrank, 1802), with the endorsement that it and other family-group names based on *Nymphula* are to be given precedence over ACENTROPINAE Stephens, 1835 and other family-group names based on *Acentropus* Curtis, 1834 whenever they are considered to be synonyms;
  - (b) ACENTROPINAE Stephens, 1835 (type genus *Acentropus* Curtis, 1834), with the endorsement that it and other family-group names based on *Acentropus* are not to be given priority over NYMPHULINAE Duponchel, [1845] and other family-group names based on *Nymphula* Schrank, 1802 whenever they are considered to be synonyms.

### Acknowledgements

Niels P. Kristensen brought this problem to my attention and encouraged submission of this proposal to the Commission. Eugene Munroe provided valuable information and comments. R.W. Hodges suggested relevant citations. A. Konstantinov translated the Russian literature. This application is supported by Niels P. Kristensen and Eugene Munroe.

### References

Curtis, J. 1834. *British Entomology*, 11: folios 482-529.

- Duponchel, P.A.J. [1845]. *Catalogue méthodique des Lépidoptères d'Europe*. 523 pp. Méquignon-Marvis, Paris.
- Fletcher, D.S. & Nye, I.W.B. 1982. *Nymphula* Schrank, 1802 (Insecta, Lepidoptera): proposal to designate a type-species. *Bulletin of Zoological Nomenclature*, **39**: 208–211.
- Fletcher, D.S. & Nye, I.W.B. 1984. *The generic names of moths of the world*, volume 5. Pyraloidea. 185 pp. British Museum (Natural History), London.
- Gomez Bustillo, M.R. 1983. Revision de los Acentropidae Sph., 1835 (sensu novo) de la Peninsula Iberica (Lep., Pyraloidea). *Actas do Congresso Iberico de Entomologia*, **1**: 305–316.
- Heppner, J.B. 1991. Faunal regions and the diversity of Lepidoptera. *Tropical Lepidoptera*, **2**: 1–85.
- Inoue, H. 1982. *Moths of Japan*, vol. 1. 966 pp. Kodansha, Tokyo.
- Minet, J. 1982. Les Pyraloidea et leurs principales divisions systématiques (Lep. Ditrysia). *Bulletin de la Société Entomologique de France*, **86**: 262–280.
- Munroe, E. 1995. Nymphulinae in Heppner, J.B. (Ed.). *Atlas of Neotropical Lepidoptera, Checklist*, part 2. 243 pp. Scientific Publishers and Association for Tropical Lepidoptera, Gainesville, Florida.
- Palm, E. 1986. *Nordeuropas Pyralider*. 287 pp. Fauna Boger. Copenhagen.
- Roesler, R.U. & Speidel, W. 1981. *Paracymoriza bleszynskialis* n. sp., eine neue Acentropine aus China (Lepidoptera-Pyraloidea-Acentropinae). *Articulata*, **1**(18): 201–206.
- Schrank, F. von P. von. 1802. *Fauna Boica*, vol. 2. 412 pp. Ingolstadt.
- Shaffer, M., Nielsen, E.S. & Horak, M. 1996. Pyraloidea in: Nielsen, E.S. et al. (Eds.). *Checklist of the Lepidoptera of Australia*. 529 pp. CSIRO, Collingwood, Australia.
- Speidel, W. 1981. Die Abgrenzung der Unterfamilie Acentropinae (Lepidoptera, Pyraloidea). *Atalanta*, **12**: 117–129.
- Speidel, W. 1982. Zwei neue Arten der Gattung *Paraponyx* Hübner, [1825] (Lepidoptera, Pyraloidea, Acentropinae). *Neue Entomologische Nachrichten*, **2**: 12–17.
- Speidel, W. 1983. The Acentropinae (Lepidoptera, Crambidae) from Spain and Portugal. *Shilap. Revista de Lepidopterologia*, **11**: 83–86.
- Speidel, W. 1984. Revision der Acentropinae des palaearktischen Faunengebietes (Lepidoptera, Crambidae). *Neue Entomologische Nachrichten*, **12**: 1–157.
- Speidel, W. 1996. Acentropinae in: Karsholt, O. & Razowski, J. (Eds.). *The Lepidoptera of Europe, a distributional checklist*. 380 pp. Apollo, Stenstrup, Denmark.
- Stephens, J.F. 1835. *Illustrations of British entomology, Mandibulata*, vol. 6. 240 pp. Baldwin & Cradock, London.
- Westwood, J.O. [1835]. Note upon the British genera *Acentria*, *Acentropus*, and *Zancle*. *Transactions of the Entomological Society of London*, **1**: 117–118.

---

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).